

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) ~~An antenna for detecting a magnetic field, wherein a plurality of loop antennas wound in opposite directions are connected in series and placed in a plane.~~ A gate for detecting detection tag comprising
a coil for magnetic field generation,
a plurality of antennas for detecting a magnetic field, wherein a plurality of loop antenna wound in opposite directions are connected in series and placed in a plane, and
an output circuit for taking out a differential output between the each output of the plurality of antennas for detecting a magnetic field.
2. Canceled.
3. (Currently Amended) ~~A magnetic field detector according to Claim 2, wherein the output circuit is a differential amplifier circuit.~~ The gate for detecting detection tag according to Claim 1, wherein the output circuit is a differential amplifier circuit.

4. (Currently Amended) ~~A magnetic field detector according to Claim 2, wherein the output circuit is a circuit formed by connecting the plurality of antennas for detecting a magnetic field in series so that the polarities of antennas become opposite from each other.~~
The gate for detecting detection tag according to Claim 1, wherein the output circuit is a circuit formed by connecting the plurality of antennas for detecting a magnetic field in series so that the polarities of antennas become opposite from each other.

5. Canceled.

6. (Currently Amended) ~~A~~ The gate for detecting detection tag according to Claim-5 1, wherein the distance between each loop antenna and the coil for magnetic field generation is 10 to 40 cm.